

AMENDMENTS TO THE CLAIMS

The claims of the application have been amended as follows. The matter added to the claims is underlined; the matter deleted from the claims is lined through; the cancelled claims are indicated by “cancelled;” and the new claims are identified with the word “new.”

1 1-25 (Cancelled).

1 26. (Currently amended) A system for ligation of internal hemorrhoids in the anal
2 canal comprising:

3 an apertured anoscope, a multiple rubber band ligator device and a ~~modified~~
4 loading cone device,

5 wherein the anoscope is configured with a hollow cylinder with multiple apertures
6 formed about the hollow cylinder at positions about the hollow cylinder for
7 simultaneously exposing hemorrhoids in the anal canal at the normal anatomic locations
8 of the hemorrhoids in a patient and permitting simultaneous access to the normal
9 locations for internal hemorrhoids;

10 wherein the ligator device is configured to store multiple rubber bands on an inner
11 cylinder and further configured to release a single rubber band at a time from the inner
12 cylinder; and

13 wherein the modified loading cone is configured for attachment to the removable
14 inner cylinder to facilitate loading of rubber bands onto said inner cylinder.

1 27. (Currently amended) The system of claim 26, wherein the anoscope is configured
2 with three apertures,

3 said three apertures configured to correspond to normal hemorrhoid locations in a
4 patient, thus permitting simultaneous access to three normal locations for internal
5 hemorrhoids,

6 said apertures extend laterally in a longitudinal direction approximately half-way
7 along a length of the anoscope, and

8 said apertures each having a width approximately equivalent to one-sixth of a
9 circumference of the anoscope.

1 28. (Original) The system of claim 26, wherein the ligator device is comprised of
2 an inner cylinder, an outer cylinder, a central rod, an outer rod, and a firing handle.

1 29. (Original) The system of claim 28, wherein the inner cylinder and the outer
2 cylinder are detachably affixed, the outer cylinder and the outer rod are fixedly attached,
3 and the central rod is secured to the firing handle, such that movement of the firing handle
4 withdraws the central rod, which in turn withdraws the inner cylinder and a single rubber
5 band is released from the inner cylinder.

1 30. (Original) The system of claim 28, wherein the inner cylinder is configured
2 for removal for reloading with multiple rubber bands and replacement within the ligator
3 device for reuse.

1 31. (Original) The system of claim 28, wherein the inner cylinder is configured
2 for removal after firing of said multiple rubber bands and replacement with another
3 preloaded inner cylinder.

1 32. (Currently amended) The system of claim 28, wherein the inner cylinder is
2 configured with a shoulder against which a disposable inner cylinder sleeve 9 is abutted;
3 the disposable inner cylinder sleeve 9 configured to surround said inner cylinder;
4 the disposable inner cylinder sleeve 9 configured with one or more premounted
5 rubber bands; and
6 the disposable inner sleeve configured for removal and replacement after firing of
7 the rubber bands with another preloaded disposable inner cylinder sleeve 9.

1 33. (Original) The system of claim 29, wherein the central rod is secured to the
2 firing handle with a spring clip, so that when the spring clip is released, the central rod is
3 retracted and the inner cylinder is withdrawn within the outer cylinder and rubber bands
4 are released from the inner cylinder.

1 34. (Original) The system of claim 29, wherein the central rod is secured to the
2 firing handle with a ratcheting mechanism, said ratcheting mechanism comprising
3 serrations along a proximal end of the central rod, a first spring used to withdraw the
4 serrated central rod and a second spring used to stabilize and prevent forward slippage of
5 the central rod, so that when the firing handle is activated, the central rod is retracted and
6 the inner cylinder is withdrawn within the outer cylinder and rubber bands are released
7 from the inner cylinder.

1 35. (Currently amended) The system of claim 26, wherein the ~~modified~~ loading cone
2 is configured with a tapered front section and a shouldered recess which receives the an
3 inner cylinder to facilitate the loading of multiple rubber bands onto the inner cylinder.

1 36-54. (Cancelled)

1 55. (New) A system for ligation of internal hemorrhoids comprising:
2 an anoscope,
3 a multiple rubber band ligator device, and
4 a loading device for loading rubber bands on said ligator device,
5 said ligator device being configured to store multiple rubber bands on an inner
6 cylinder and further configured to release a single rubber band at a time from the inner
7 cylinder;
8 said loading device being configured for loading of rubber bands onto said inner
9 cylinder,
10 said anoscope including a cylinder having a distal end for insertion in the anal canal
11 and a proximal end for positioning exteriorly of the anal canal,
12 said cylinder defining three lateral apertures extending along said cylinder
13 opening from the distal end of said cylinder toward the proximal end of the cylinder,
14 said apertures being spaced apart about said cylinder to be positionable at the three
15 o'clock, seven o'clock and eleven o'clock positions about the cylinder when inserted in
16 the anal canal with the patient in the supine position.

1 56. (New) The system of claim 55, and wherein the combined width of said
2 lateral apertures is approximately equal to one half of the circumference of said cylinder.

1 57. (New) The system of claim 55, wherein said cylinder is tapered at its
2 distal end.

1 58. (New) The system of claim 55, wherein said apertures extend
2 approximately half-way along the length of said cylinder.

1 59. (New) The system of claim 55, wherein said apertures extend not more
2 than half-way along the length of said cylinder to expose only internal hemorrhoids in the
3 anal canal.

1 60. (New) The system of claim 55, and further including a flange extending
2 radially from the proximal end of said cylinder.

1 61. (New) The system of claim 60, and further including a handle extending
2 from said flange.

1 62. (New) The system of claim 61, wherein said handle incorporates a
2 housing for the attachment of an external light source and a fiber optic cable that
3 transmits light into the cylinder of said anoscope.

1 63. (New) The system of claim 61, wherein said handle is oriented on said
2 flange to be in the twelve o'clock position when the openings in the cylinder are oriented
3 in the three o'clock, seven o'clock and in the eleven o'clock positions with the patient in
4 the supine position.

1 64. (New) The system of claim 61, wherein said handle is oriented on said
2 flange to be in the twelve o'clock position when the openings in the cylinder are oriented
3 in the nine o'clock, one o'clock and five o'clock positions with the patient in the prone
4 position.

1 65. (New) The system of claim 55, wherein said openings in said cylinder
2 each extend about said cylinder approximately 1/6 of the cylinder circumference.

1 66. (New) In combination with a ligator and a loading device, an anoscope for
2 ligation of internal hemorrhoids comprising:

3 a cylinder having a distal end for insertion in the anal canal and a proximal end for
4 positioning exteriorly of the anal canal,

5 said cylinder defining three lateral apertures opening from the distal end of said
6 cylinder toward the proximal end of said cylinder, said apertures being spaced apart about
7 said cylinder to be positionable at the three o'clock, seven o'clock and eleven o'clock

8 positions about the cylinder when inserted in the anal canal with the patient in the supine
9 position for exposing three areas of the anal canal that have internal hemorrhoids

1 67. (New) The combination of claim 66, and wherein the combined width of
2 said lateral apertures is approximately equal to one half of the circumference of said
3 cylinder.

1 68. (New) The combination of claim 66, wherein said cylinder is tapered at its
2 distal end.

1 69. (New) The combination of claim 66, wherein said apertures extend
2 approximately half-way along the length of said cylinder to expose internal hemorrhoids
3 while the rest of the cylinder tends to hold other features of the anal canal outside the
4 cylinder.

1 70. (New) The combination of claim 66, wherein said apertures extend not
2 more than half-way along the length of said cylinder to expose only internal hemorrhoids
3 in the anal canal.

1 71. (New) The combination of claim 66, and further including a flange
2 extending radially from the proximal end of said cylinder.

1 72. (New) The combination of claim 71, and further including a handle
2 extending from said flange.

1 73. (New) The combination of claim 72, wherein said handle incorporates a
2 housing for the attachment of an external light source and a fiber optic cable that
3 transmits light into the cylinder of said anoscope.

1 74. (New) The combination of claim 72, wherein said handle is oriented on
2 said flange to be in the twelve o'clock position when the openings in the cylinder are
3 oriented in the three o'clock, seven o'clock and in the eleven o'clock positions with the
4 patient in the supine position.

1 75. (New) The combination of claim 72, wherein said handle is oriented on
2 said flange to be in the twelve o'clock position when the openings in the cylinder are
3 oriented in the nine o'clock, one o'clock and five o'clock positions with the patient in the
4 prone position.

1 76. (New) The combination of claim 66, wherein said openings in said
2 cylinder each extend about said cylinder approximately $1/6$ of the cylinder circumference.

1 77. (New) In combination, a ligator, a loading device for loading bands on the
2 ligator, and an anoscope for receiving the ligator for ligation of internal hemorrhoids of
3 the anal canal of a patient, the anoscope including:

4 a cylinder having a distal end for insertion in the anal canal and a proximal end for
5 positioning exteriorly of the anal canal,

6 said cylinder defining lateral apertures opening from the distal end of said cylinder
7 toward the proximal end of said cylinder, said apertures being spaced apart about said
8 cylinder to register with the internal hemorrhoids of the patient,

9 a handle extending radially away from the proximal end of the cylinder at a
10 predetermined angle with respect to the apertures of the cylinder such that when the
11 cylinder is inserted in the anal canal of the patient and the handle is oriented at a
12 predetermined attitude with respect to the patient the apertures of the cylinder register
13 with the internal hemorrhoids of the patient.